SEQUENCE LISTING

- 5 1). GENERAL INFORMATION
 - i). NUMBER OF SEQUENCES:31
 - 2) INFORMATION FOR SEQ ID No.:1
 - i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 20 nucleotides
- 10 (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: linear
 - ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: yes
- 15 iv). ANTI-SENCE: no
 - v). SEQUENCE DESCRIPTION: SEQ ID NO: 1:

ACT TAA GTT AGA GCG TTT GC 20

- 20 3) INFORMATION FOR SEQ ID No.:2
 - i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 20 nucleotides
 - (B)TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
- 25 (D) TOPOLOGY: linear
 - ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: yes
 - iv). ANTI-SENCE: no
 - v). SEQUENCE DESCRIPTION: SEQ ID NO: 2:

30

TGG TAG TAT GTG ATT TAG TC 20

4) INFORMATION FOR SEQ ID No.:3

68

i). SEQUENCE CHARACTERISTICS:

(A) LENGTH: 40 nucleotides

(B) TYPE: nucleic acid

(C) STANDARDNESS: single standard

5 (D) TOPOLOGY: linear

ii). MOLECULE TYPE: nucleic acid

iii). HYPOTHETICAL: yes

iv). ANTI-SENCE: no

v). SEQUENCE DESCRIPTION: SEQ ID NO: 3:

10

TAC ACT TAA GTT AGA GCG TTT GCG CCC ACT ACG ACG GTT G 40

- 5) INFORMATION FOR SEQ ID No.:4
- i). SEQUENCE CHARACTERISTICS:
- 15 (A) LENGTH: 44 nucleotides
 - (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: linear
 - ii). MOLECULE TYPE: nucleic acid
- 20 iii). HYPOTHETICAL: yes
 - iv). ANTI-SENCE: no
 - v). SEQUENCE DESCRIPTION: SEQ ID NO: 4:
 - G TTT TTG TGG TAG TAT GTG ATT TAG TCA TTC AAC CGT CGT AGT G 44

- 6) INFORMATION FOR SEQ ID No.:5
- i). SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 20 nucleotides
- (B) TYPE: nucleic acid
- 30 (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: linear
 - ii). MOLECULE TYPE: other nucleic acid

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| iii). I | \mathbf{IYP} | OΤ | HEI | TIC. | AL | : | no |
|---------|----------------|----|-----|------|----|---|----|
|---------|----------------|----|-----|------|----|---|----|

- iv). ANTI-SENCE: no
- v). MODIFICATION: FAM at base position 18
- v). SEQUENCE DESCRIPTION: SEQ ID NO: 5:

5

ACT TAA GTT AGA GCG TTT GC 20

- 7) INFORMATION FOR SEQ ID No.:6
- i). SEQUENCE CHARACTERISTICS:
- 10 (A) LENGTH: 19 nucleotides
 - (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: linear
 - ii). MOLECULE TYPE: nucleic acid
- 15 iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
 - v). MODIFICATION: no
 - vi). ORGANISM: Leishmania donovani
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 6:

20

ACG GAG CGG CTG AAG GTG C 19

- 8) INFORMATION FOR SEQ ID No.:7
- i).SEQUENCE CHARACTERISTICS:
- 25 (A) LENGTH: 27 nucleotides
 - (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
 - (D) TOPOLOGY : Hair-pin
 - ii). MOLECULE TYPE: nucleic acid
- 30 iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
 - v). MODIFICATION: no

- vi). ORGANISM: Leishmania donovani
- vi). SEQUENCE DESCRIPTION: SEQ ID NO: 7:

AGG TGC ATC CAC TTG TCC TGC ACC TGC 27

5

- 9) INFORMATION FOR SEQ ID No.:8
- i). SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21 nucleotides
- (B) TYPE: nucleic acid
- 10 (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: Hair-pin
 - ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
- 15 v). MODIFICATION: no
 - vi). ORGANISM: Leishmania donovani
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 8:

AGG CAG ATG GCG CCT GCC TCG 21

- 10) INFORMATION FOR SEQ ID No.:9
- i). SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 25 nucleotides
- (B) TYPE: nucleic acid
- 25 (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: Hair-pin
 - ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
- 30 v). MODIFICATION: no
 - vi). ORGANISM: Leishmania donovani
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 9:

ATG CGG CGC TGT AGT ACC CCG CAT C 25

- 11) INFORMATION FOR SEQ ID No.:10
- 5 i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 20 nucleotides
 - (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: linear
- 10 ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
 - v). MODIFICATION: no
 - vi). ORGANISM: Leishmania donovani
- 15 vi). SEQUENCE DESCRIPTION: SEQ ID NO: 10:

GGG GTA CTA CAG CGC CCT GA 20

- 12) INFORMATION FOR SEQ ID No.:11
- 20 i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 28 nucleotides
 - (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
 - (D) TOPOLOGY : Hair-pin
- 25 ii) MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
 - v). MODIFICATION: no
 - vi). ORGANISM: Leishmania donovani
- 30 vi). SEQUENCE DESCRIPTION: SEQ ID NO: 11:

ATG GCC ATG TCC TGG AAG ATG GCC ATG G 28

- 13) INFORMATION FOR SEQ ID No.:12
- i). SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 29 nucleotides
- 5 (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: Hair-pin
 - ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
- 10 iv). ANTI-SENCE: no
 - v). MODIFICATION: no
 - vi). ORGANISM: Leishmania donovani
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 12:

15 ATG GCC ATC GTC CTG GAA GAT GGC CAT GG 29

- 14) INFORMATION FOR SEQ ID No.:13
- i). SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 20 nucleotides
- 20 (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: linear
 - ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
- 25 iv). ANTI-SENCE: no
 - v). MODIFICATION: no
 - vi). ORGANISM: Leishmania donovani
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 13:

30 GTC CTG GAA GAT GGC CAT GG 20

15) INFORMATION FOR SEQ ID No.:14

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i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 nucleotides

(B) TYPE: nucleic acid

(C) STANDARDNESS: single standard

(D) TOPOLOGY: linear 5

ii). MOLECULE TYPE: nucleic acid

iii). HYPOTHETICAL: no

iv). ANTI-SENCE: no

v). MODIFICATION: no

vi). ORGANISM: Leishmania donovani 10

vi). SEQUENCE DESCRIPTION: SEQ ID NO: 14:

CTG CAC ACG GAG CGG CTG AA 20

- 16) INFORMATION FOR SEQ ID No.:15 15
 - i). SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 20 nucleotides
 - (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
- (D) TOPOLOGY: linear 20
 - ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
 - v). MODIFICATION: no
- vi). ORGANISM: Leishmania donovani 25
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 15:

GGA CGA GCT CAT GGC GCC TG 20

- 17) INFORMATION FOR SEQ ID No.:16 30
 - i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 20 nucleotides

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| (B) | TYPE | : | nucleic | acid |
|-----|-------------|---|---------|------|
|-----|-------------|---|---------|------|

- (C) STANDARDNESS: single standard
- (D) TOPOLOGY: linear
- ii). MOLECULE TYPE: nucleic acid
- 5 iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
 - v). MODIFICATION: no
 - vi). ORGANISM: Leishmania donovani
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 16:

10

GTC CTG TTC ACC TTC CAC TG 20

- 18) INFORMATION FOR SEQ ID No.:17
- i). SEQUENCE CHARACTERISTICS:
- 15 (A) LENGTH: 19 nucleotides
 - (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: linear
 - ii). MOLECULE TYPE: nucleic acid
- 20 iii) HYPOTHETICAL : no
 - iv). ANTI-SENCE: no
 - v). MODIFICATION: no
 - vi). ORGANISM: Leishmania donovani
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 17:

25

GCT CAT GGC GCC TGC CTC G 19

- 19) INFORMATION FOR SEQ ID No. 18
- i). SEQUENCE CHARACTERISTICS:
- 30 (A) LENGTH: 19 nucleotides
 - (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard

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(D) TOPOLOGY: linear

ii). MOLECULE TYPE: nucleic acid

iii). HYPOTHETICAL: no

iv). ANTI-SENCE: no

v). MODIFICATION: no 5

vi). ORGANISM: Leishmania donovani

vi). SEQUENCE DESCRIPTION: SEQ ID NO: 18:

GCG TGT AGT ACC CCG CAT C 19

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- 20) INFORMATION FOR SEQ ID No.:19
- i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 20 nucleotides
- (B) TYPE: nucleic acid
- 15 (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: linear
 - ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
- v). MODIFICATION: FAM at base position 18 20
 - vi). ORGANISM: Leishmania donovani
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 19

GGG GTA CTA CAG CGC CCT GA 20

- 21) INFORMATION FOR SEQ ID No.:20
- i). SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 20 nucleotides
- (B) TYPE: nucleic acid
- (C) STANDARDNESS: single standard 30
 - (D) TOPOLOGY: linear
 - ii). MOLECULE TYPE: nucleic acid

- iii). HYPOTHETICAL: no
- iv). ANTI-SENCE: no
- v). MODIFICATION: JOE at base position 18
- vi). ORGANISM: Leishmania donovani
- 5 vi). SEQUENCE DESCRIPTION: SEQ ID NO: 20

GTC CTG GAA GAT GGC CAT GG 20

- 22) INFORMATION FOR SEQ ID No.:21
- 10 i).SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 18 nucleotides
 - (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: linear
- 15 ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
 - v). MODIFICATION: FAM at base position 18
 - vi). ORGANISM: Leishmania donovani
- 20 vi). SEQUENCE DESCRIPTION: SEQ ID NO: 21

GGG GTA CTA CAG CGC CCT 18

- 23) INFORMATION FOR SEQ ID No.:22
- 25 i). SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 29 nucleotides
 - (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
 - (D) TOPOLOGY : Hair-pin
- 30 ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no

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- v). MODIFICATION: DABCYL at base 1 and JOE at base 27
- vi). ORGANISM: Leishmania donovani
- vi). SEQUENCE DESCRIPTION: SEQ ID NO: 22

5 ATG GCC ATC GTC CTG GAA GAT GGC CAT GG 29

- 24) INFORMATION FOR SEQ ID No.:23
- i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 29 nucleotides
- 10 (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: Hair-pin
 - ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
- 15 iv). ANTI-SENCE: no
 - v). MODIFICATION: DABCYL at base 1 and FAM at base 27
 - vi). ORGANISM: Leishmania donovani
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 23

20 ATG GCC ATC GTC CTG GAA GAT GGC CAT GG 29

- 25) INFORMATION FOR SEQ ID No.:24
- i). SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 19 nucleotides
- (B) TYPE: nucleic acid 25
 - (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: linear
 - ii) MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
- 30 iv). ANTI-SENCE: no
 - v). MODIFICATION: DABCYL at base 17
 - vi). ORGANISM: Leishmania donovani

vi). SEQUENCE DESCRIPTION: SEQ ID NO: 24

GCT CAT GGC GCC TGC CTC G 19

- 5 26) INFORMATION FOR SEQ ID No.:25
 - i). SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 20 nucleotides
 - (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
- 10 (D) TOPOLOGY: linear
 - ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
 - v). MODIFICATION: Rhodamine at base 18
- vi). ORGANISM: Leishmania donovani
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 25

GTC CTG GAA GAT GGC CAT GG 20

- 20 27) INFORMATION FOR SEQ ID No.:26
 - i). SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 20 nucleotides
 - (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
- 25 (D) TOPOLOGY: linear
 - ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
 - v). MODIFICATION: JOE at base 12
- 30 vi). ORGANISM : Leishmania donovani
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 26

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GTC CTG GAA GAT GGC CAT GG 20

- 28) INFORMATION FOR SEQ ID No.:27
- i) SEQUENCE CHARACTERISTICS:
- 5 (A) LENGTH: 20 nucleotides
 - (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: linear
 - ii). MOLECULE TYPE: nucleic acid
- 10 iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
 - v). MODIFICATION: no
 - vi). ORGANISM: E. coli
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 27

15

TGA ATT CAA TCT CGC AAA CG 20

- 29) INFORMATION FOR SEQ ID No.:28
- i). SEQUENCE CHARACTERISTICS:
- 20 (A) LENGTH: 26 nucleotides
 - (B) TYPE: nucleic acid
 - (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: linear
 - ii). MOLECULE TYPE: nucleic acid
- 25 iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
 - v). MODIFICATION: no
 - vi). ORGANISM: E. coli
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 28

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ATC GGA TCC CAA ATG CCT GAG GCC AG 26

- 30) INFORMATION FOR SEQ ID No.:29
- i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 20 nucleotides
- (B) TYPE: nucleic acid
- 5 (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: linear
 - ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
- 10 v). MODIFICATION: no
 - vi). ORGANISM: E. coli
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 29

GGC AAT GAA AAG CCA CTT CT 20

15

- 31) INFORMATION FOR SEQ ID No.:30
- i). SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 20 nucleotides
- (B) TYPE: nucleic acid
- 20 (C) STANDARDNESS: single standard
 - (D) TOPOLOGY: linear
 - ii). MOLECULE TYPE: nucleic acid
 - iii). HYPOTHETICAL: no
 - iv). ANTI-SENCE: no
- 25 v). MODIFICATION: no
 - vi). ORGANISM: E. coli
 - vi). SEQUENCE DESCRIPTION: SEQ ID NO: 30

TTA ACC GGC GAT TGA GTA CC 20

- 32) INFORMATION FOR SEQ ID No.:31
- i).SEQUENCE CHARACTERISTICS:

| | (A) LENGTH: 20 nucleotides |
|----|--|
| | (B) TYPE : nucleic acid |
| | (C) STANDARDNESS: single standard |
| | (D) TOPOLOGY: linear |
| 5 | ii). MOLECULE TYPE : nucleic acid |
| | iii). HYPOTHETICAL: no |
| | iv). ANTI-SENCE : no |
| | v). MODIFICATION: no |
| | vi). ORGANISM : E. coli |
| 10 | vi). SEQUENCE DESCRIPTION: SEQ ID NO: 31 |
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| | AGC CTT ATG ACG TGC AGC TT 20 |
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